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The spread of the House Sparrow *Passer domesticus indicus* in Africa with new records from Tanzania

Harwin & Irwin (1966) and Summers-Smith (1988) summarized what was known about the introduction and subsequent explosive dispersal of House Sparrow *Passer domesticus indicus* in southern and central Africa. We briefly review these important contributions and present new distributional records from southwestern Tanzania.

The first introductions of House Sparrow were made in the 1890s and early 1900s in the Republic of South Africa. Individuals of the eastern subspecies *P. d. indicus* were released at Durban, and nominate *P. d. domesticus* from western Europe were released at East London. Later, *indicus* was also released at East London, where it interbred with *domesticus*. In 1955 *domesticus* was released at Maputo (= Lourenço Marques) in Moçambique. It spread throughout the city but did not appear to be colonizing new

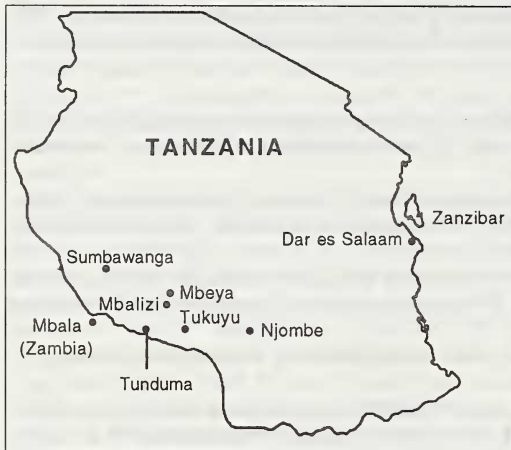


Figure 1. Localities in southwestern Tanzania and northern Zambia where the House Sparrow *Passer domesticus indicus* has been recorded

areas (Harwin & Irwin 1966). Clancey (1971) mentioned a sight record, possibly of *domesticus*, from Xai-Xai north-east of Maputo that could have originated with these birds, however.

Dispersal of House Sparrows (subspecies *indicus*) along the coast and into Natal and other parts of South Africa continued at a slow but steady pace during the first five decades after its release. In the 1950s this spread became explosive. Colonization of Botswana, Namibia, Zimbabwe, Zambia, Zaire, Moçambique, and Malawi followed over the next 25 years (Benson & Benson 1975, Clancey 1971, Dowsett 1971, Donnelly 1974, Harwin & Irwin 1966, Irwin 1981, Maclean

1985, Payne & Payne 1967, Summers-Smith 1988). House Sparrows were first seen in southern Zambia in 1965, and the first nests were found at Livingstone in 1966 (Brooke 1967, Harwin & Irwin 1966). By 1971 House Sparrows had reached Mbala in northern Zambia, 25 km from the border of Tanzania (Dowsett 1971, 1976, Tucker 1972).

In East Africa, House Sparrows (subspecies *indicus*) were introduced at Zanzibar and Mombasa sometime early in this century (Jackson 1938, Mackworth-Praed & Grant 1955). Although House Sparrows became well established in Zanzibar town (Pakenham 1979), they did not do well in Mombasa. Lack of records from the early part of this century to the 1970s may indicate that the initial introduction at Mombasa failed (see Lewis 1983 and citations therein). Recent records may represent birds that colonized from elsewhere and became established. In the last decade the Mombasa population has undergone a large increase followed by dispersal. Colonization of coastal areas in Kenya, inland movements, and a few records in Somalia have been documented (Lewis 1983, Ash & Miskell 1988).

House Sparrows were not known from West Africa until 1970 when they appeared unexpectedly in Dakar, Senegal (Morel 1988). Since then, House Sparrows (most probably *indicus*) have spread along major trade routes east and south to The Gambia and north along the Senegal-Mauritania border. The origin of this invasion is not known but may have been of birds released from ships (Morel 1988).

Zanzibar town was the only locality in Tanzania from which Britton (1980) recorded House Sparrow. Forbes-Watson (1972) stated that it was successful in Zanzibar and Dar es Salaam. However, mainland Tanzania records from the 1970s are lacking, and it is doubtful that the House Sparrow was "successful" in Dar es Salaam at this time (Pakenham 1979). A comprehensive list of birds from Dar es Salaam area (until 1979) gave no records of this species (Harvey & Howell 1987). The first documented records

from mainland Tanzania were of several pairs seen by K. M. Howell and C. A. Msuya at Dar es Salaam in 1984 (Stevenson & Pearson 1986). By the early 1990s House Sparrows were common in most parts of the city, particularly around the docks. There has been no evidence of dispersal from the coastal invasion to inland towns. However, if the pattern of colonization in Tanzania follows that of this species in the rest of Africa, it can be expected to appear soon in towns along major roads and railway lines into the hinterland.

Although House Sparrows reached the border between Tanzania and Zambia in the early 1970s, up to 1976 there were still no records from southern Tanzania (Dowsett 1976). The figure documenting House Sparrow dispersal in Africa in Summers-Smith (1988) showed House Sparrows arriving in southern Tanzania in the early 1980s, but there are no records to support this. The first records of House Sparrows were made by ES, who found a pair at Tukuyu in April 1987 and 2-3 pairs at Kyela and Njombe in June 1987. Since then House Sparrow populations have been increasing at those localities and in other major towns in the South (Figure 1). On 15 February 1989, 3-4 House Sparrows were in residence at the Moravian Hostel in Mbeya. By 1990 they had colonized Mbalizi, 13 km south of Mbeya, where at least 20 birds were resident and breeding on the compound of Mbalizi garage. During August and November 1991, a pair appeared at Igogwe but stayed only 1-2 days.

One route for the predicted invasion of southwest Tanzania by House Sparrows was along the road from Mbala, Zambia, to Sumbawanga (Britton 1980, Tucker 1972). Although House Sparrows reached Mbala (23 km from the Tanzania border) as early as 1971, there were still no records from Sumbawanga up to the end of 1989. The first House Sparrows at Sumbawanga were found by DM on 11 October 1990. Three birds, a male and two females, were seen on the south side of town near large warehouses used for grain storage. These birds may have been the first to reach Sumbawanga and most probably came from Mbala 130 km to the south. However, it is possible that they came from Mbeya or Tunduma 230 km to the east.

House Sparrows are an increasingly common breeding species in urban centres in southwest Tanzania and on the coast at Dar es Salaam. At Mbalizi, House Sparrows outnumber Grey-headed Sparrows *Passer griseus* five to one. They appear to co-exist without much aggressive interaction, feeding together in small flocks on the ground and perching together on overhead wires (see also Lewis 1983). What affect the invasion of House Sparrows will have on indigenous species is not yet known, but it is unlikely to be serious. One reason for this is that House Sparrows throughout Africa have colonized European style towns and urban areas rather than villages and natural habitats. Few indigenous species have been able to colonize urban areas, so competition there is minimal (Irwin 1981). Benson *et al.* (1971) suggested that House Sparrows might have an adverse affect on Grey-headed Sparrows because both species use similar nest sites on buildings. Observations by Penry (1978) support this. Beginning shortly after the colonization by House Sparrows, Penry (1978) recorded the relative abundance of this species and of Grey-headed Sparrows over a six-year period on the hospital compound at Kitwe, Zambia. During this time a complete reversal in numbers of breeding birds was recorded. For the first three years Grey-headed Sparrows outnumbered House Sparrows by ten to one, in the fifth year there was an increase in House Sparrow numbers, and by the sixth year the relative abundance of the two species was completely reversed, with House Sparrows outnumbering Grey-headed Sparrows ten to one.

House Sparrows (subspecies *indicus*) in India, Kenya, Moçambique, and Senegambia have multiple broods and may breed throughout the year if conditions are favourable, whereas Grey-headed Sparrows are seasonal breeders (Clancey 1971, Lewis 1983, Morel 1988, Penny 1974). If House Sparrows are breeding when Grey-headed Sparrows come into breeding condition, Grey-headed Sparrows may have a more difficult time obtaining nest sites. When densities of House Sparrows are low, nest site availability would probably not be an adverse factor in breeding success of Grey-headed Sparrows. When densities of House Sparrows increase, however, densities of Grey-headed Sparrows may decrease locally because of pre-emption of nest sites by House Sparrows.

In addition to urban areas, Grey-headed Sparrows are found in woodland and villages in southern Tanzania. The most common nest sites used are holes under the eaves of buildings. Other nest sites include: holes in dead trees, dense thorn tangles in *Acacia* trees, and introduced fir trees (Penry 1978, D. Moyer unpublished data). Because House Sparrows generally colonize urban areas, it is possible that an increase in their numbers will restrict Grey-headed Sparrows to the more rural areas and "traditional" nest sites. It would be interesting to record population trends of urban Grey-headed Sparrows as House Sparrows colonize new areas in Tanzania and increase in abundance. It would be particularly informative to obtain comparative data from areas, such as Sumbawanga, where the year of colonization by House Sparrows is known, and which had a high population of Grey-headed Sparrows at that time.

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A new location for the Ankober Serin *Serinus ankoberensis* near Debre Sina, Ethiopia

While on a field trip with the Ethiopian Wildlife and Natural History Society to Debre Sina on 26 October 1991, I was able to stop at the view point 3–4 km before the Mussolini Tunnel, above and south of Debre Sina town. At this point on the eastern escarpment of the western highland massif, the rock cliffs of the escarpment are broken by a deep, narrow ravine, with steeply shelving, near vertical sides. The ravine is as little as 30–40 m wide in places, though it is considerably wider at the escarpment rim. The altitude is approximately 3250 m. In this ravine I watched a number of small serins *Serinus* sp., which I subsequently identified as Ankober Serins *Serinus ankoberensis*. The birds were watched from 15:00 to 15:20 at distances between 20 and 100 m from above, in sunny, windy conditions through 10 x 40 binoculars.